

# WASTEWATER TREATMENT BASIC COURSE

Includes a learning style analysis, tips for better test taking, 17 modules of training related to basic wastewater treatment operations, games and activities, review sections, and unlimited use of practice exams for six weeks of study.



Train 2 Retain Resources, LLC 502-320-4706 <u>info@train2retain.net</u>

www.train2retain.net

Study for your certification exam, or earn continuing education credit.







## Our Course Includes:

## Module 1—THE TREATMENT SPECIALIST

Understanding the Water Cycle Review Section and Games Flash Cards—Important Terminology

## Module 2—WHAT IS WASTEWATER?

Pollution Water Contamination Oxygen Depletion Pathogenic Organisms Review Section and Games Flash Cards—Important Terminology

# Module 3-WASTEWATER SOURCES

Domestic/Residential Commercial Industrial Stormwater Groundwater Review Section and Games Flash Cards—Important Terminology **Module 4—WASTEWATER CHARACTERISTICS** Solids in Wastewater Biological Oxygen Demand pH Nutrients Microconstituents Review Section and Games Flash Cards—Important Terminology

Module 5— SAMPLING Types of Samples Automatic Samplers Sampling Locations Sampling Criteria Review Section and Games Flash Cards—Important Terminology

Module 6— CONVENTIONAL TREATMENT Typical Treatments Review Section and Activity

## **Module 7—PRELIMINARY TREATMENT** Septage Receiving Equalization Basins Screens

Grinders/Comminutors Grit Removal Flow Measurement Review Section and Games Flash Cards—Important Terminology

Module 8—PRIMARY TREATMENT Flow Distribution Module 8 – PRIMARY TREATMENT, cont. Clarifier Efficiency Sludge/Scum Removal Primary Solids Detention Time Weir Overflow Rate Testing Equipment in Primary Treatment Review Section and Games Flash Cards— Important Terminology

## Module 9-NATURAL TREATMENT

Stabilization Lagoons Wetlands Treatment within Wetlands Testing of a Lagoon Review Section and Games Flash Cards—Important Terminology

## Module 10—SECONDARY TREATMENT

Activated Sludge Fixed Film Nitrification/Denitrification Process Control and Labwork Review Section and Games Flash Cards—Important Terminology

# Module 11—TERTIARY TREATMENT

Carbon Adsorption Chemical Coagulation/Precipitation Review Section and Games Flash Cards—Important Terminology

## Module 12—DISINFECTION

Chlorination Dechlorination Ultraviolet Irradiation Ozonation Dose/Residual Review Section and Games Flash Cards—Important Terminology

## Module 13-ADDITIONAL TREATMENT TOPICS

Hauled Waste Fats, Oil, and Grease Odor Control Pumps and Maintenance Motors and Maintenance Review Section and Games Flash Cards—Important Terminology

# Module 14—SOLIDS HANDLING

Solids Digestion Dewatering Sludge Management Practices Review Section and Games Flash Cards—Important Terminology

## Module 15-REGULATORY REPORTING

Operator Certification Discharge Monitoring Reports Review Section and Games Flash Cards—Important Terminology

# Module 16—SECURITY

Electronic Security—Data & SCADA Physical Site Security Hazardous Chemicals Safety/Security

#### Module 16, cont.

Emergency Response Planning Review Section and Games Flash Cards—Important Terminology

#### Module 17—FINAL MATH REVIEW

Total Solids Total Suspended Solids Biological Oxygen Demand Gallons Conversions Pounds Calculations Weir Overflow Rate Percent Removal Efficiency Detention Time Calculation of Surface Area—Acres Calculation of Volume Population Loading Hydraulic Loading Organic Loading Food to Microorganism Ratio Sludge Age Chlorine-Dose Demand Residual SOUR Calculation Volatile Solids Loading **Pumping Rates** 

# TIPS FOR TAKING A CERTIFICATION EXAM

# COMPLETE GLOSSARY OF ALL COURSE TERMS

**PRACTICE EXAMS**—Over 700 questions in question bank, so practice exams are different with every attempt. Exams are instantly scored and all incorrect answered questions identified by section for further study. **Contact us for further information:** 

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